

REMARKS

Claims 1-5, 7 and 8 are all the claims pending in the application.

Response to Claim Rejections Under § 103

Claims 1-5 and 7-8 are rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over JP 2001-107031 to Oharu et al. Applicants respectfully traverse.

Present Claim 1 requires a nonionic surfactant having an HLB of less than 12 which is at least one selected from the group consisting of $C_{11-14}H_{23-29}$ -iso- $O(C_2H_4O)_3H$, $C_{12}H_{25}O(C_2H_4O)_4H$, and sorbitan monopalmitate.

Oharu discloses a composition comprising 4.8g of a nonionic surfactant with an HLB value of 4 and 2.4g of a nonionic surfactant having an HLB value of 7.95. However, Oharu does not disclose a nonionic surfactant having an HLB value of less than 12 selected from $C_{11-14}H_{23-29}$ -iso- $O(C_2H_4O)_3H$, $C_{12}H_{25}O(C_2H_4O)_4H$ and sorbitan monopalmitate. Therefore, the present claims are not anticipated by Oharu et al.

In addition, the Examiner asserts that Oharu discloses that the HLB value is associated with the oxyethylene (OE) units. Applicants respectfully disagree. Oharu does not disclose or suggest that the above three compounds confer storage stability and dilution stability with use of an acrylic binder of the aqueous water- and oil-repellent dispersion, in combination with the nonionic surfactant having an HLB of not less than 12 and less than 17 and the nonionic surfactant having an HLB of not less than 17.

As shown in the attached Rule 132 Declaration by Mr. Enomoto, dispersions containing $C_{11-14}H_{23-29}$ -iso- $O(C_2H_4O)_3H$ and $C_{12}H_{25}O(C_2H_4O)_4H$, as the nonionic surfactant having an HLB of less than 12, are superior in storage stability and dilution stability when used with an acrylic binder, as compared to dispersions containing the compounds which are specifically mentioned in Oharu. More specifically, the "Test" of Table I at page 5 of the Declaration contained the surfactants A and B as shown at the top of page 4 of the Declaration and as employed in Example 1 of Oharu. Specifically, surfactant A is polypropylene oxide / polyethylene oxide block copolymer (MW of polypropylene oxide section is 2000, and the average addition mole number of ethylene oxide in the polyoxyethylene section is 30) having an HLB of 11.8 and surfactant B which is compound (c-3) as shown at page 23 of the English translation of Oharu having an HLB of 4. Other compounds specifically disclosed in Oharu have HLB values of 12 or more. On the other hand, as for the compounds used in Examples 1-7, those having an HLB value of less than 12 are nonionic surfactants 1 and 2, namely, $C_{11-14}H_{23-29}$ -iso- $O(C_2H_4O)_3H$ and $C_{12}H_{25}O(C_2H_4O)_4H$ of present claim 1.


More particularly, as demonstrated by the attached experimental data, the storage stability and the dilution stability of the dispersion, when used with an acrylic binder, are not a result of the HLB value and the weight ratio of the surfactants alone. Rather, the test data, and specifically the comparison of "Test" with Ex. 1 and Ex. 3 show criticality in selection of the specifically claimed nonionic surfactants having an HLB value of less than 12 for promoting dispersion stability. Thus, the presently claimed invention exhibits unexpectedly superior results.

Thus, Oharu fails to anticipate or render obvious the present claims. Accordingly, withdrawal of the rejection is respectfully requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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